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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,470

12/16/2003

James A. Hough

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919 7590 12/20/2006  
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EXAMINER

KARLS, SHAY LYNN

ART UNIT

PAPER NUMBER

1744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/20/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/707,470

Applicant(s)

HOUGH ET AL.

Examiner

Shay L. Karls

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 states that the first strip is "relatively narrow" however it is unclear what the strip is narrow relative to. Is the applicant referring to the strip being narrow compared to the substrate length, a football field, the length of the strip, etc.? Please clarify.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-3, 5, 7-8, 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Beeson (USPN 5589865).

Beeson teaches a cleaning sheet comprising a substrate sheet (32) with a first and second surface (upper and lower surfaces) (claims 1 and 2). The first surface of the sheet comprises a first (36) and second strip (34) of material (claim 1). The first and second strips have a first strip

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height (figure 3) and are orientated perpendicular to the feed path of the apparatus (col. 5, lines 56-58; states that the strips could be parallel to the page width). The first and second strips of material will compress when drawn through a roller since they are both made from compliant materials (col. 5, lines 7-23) (claim 1). The first strip is separated from the second strip by a first distance (figure 2) (claim 1). The height of the strips is relatively large compared to the substrate thickness (figure 3) (claim 1). The strip height is more than double the height of the substrate (figure 3) (claim 8). The first strip of material comprises open cell foam (first strip 36 is made from an absorbent material which is inherently an open cell material) (claim 3). The first strip of material comprises lint-free, lead-free, non-abrasive, open cell foam (col. 5, lines 21-24) (claim 5). The substrate sheet has a leading edge handle (edge closest to 38 is considered the handle; any portion that can be gripped by a users hand can be considered a handle) (claim 7). The substrate sheet has approximately the planar dimensions of a letter-sized sheet of paper (col. 4, lines 65-67) (claim 8). The first strip is narrow to allow the first strip to vertically decompress when exiting the roller nip (claim 10). At least one of the first and second strips have the shape of a rectangular prism (figure 3) (claim 15).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865) in view of Kikuchi et al. (USPN 6353233)

Beeson teaches that the first strip of material is closer to the front edge of the substrate sheet than the second strip of material. Beeson however fails to teach that the second strip is made from an open cell foam material comprising brush bristles. Kikuchi teaches a cleaning sheet comprising bristles (3a). First, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the second strip from an open-cell foam, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416. Additionally, it would have been obvious to modify the second strip of Beeson with an open-cell foam since it is an obvious modification well known in the art to duplicate parts for a multiple effect. *In re Harza*, 124 USPQ 378, 380. Having both strips be open-cell foam would only enhance the cleaning capabilities of Beeson's invention. In addition to modifying the material of the second strip, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the second strip so that it comprises

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bristles as taught by Kikuchi so that the bristles will aid in cleaning contaminants such as dust attached to the sensors (col. 4, lines 46-53).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the substrate has approximately the planar dimensions of a number 10 envelope. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Beeson's substrate to have dimensions approximately equal to a number 10 envelope since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A device having the claimed relative dimensions would not perform differently than the prior art device, and therefore, the claimed device is not patentable distinct from the prior art device. MPEP 2144.04. Additionally, Beeson states that the cleaning apparatus could take on various dimensions (col. 4, line 67).

Claims 9, 13-14, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the first strip height is approximately twelve times the substrate thickness, that the first strip height is 0.75 inches, the first strip has a width of 0.5 inches and that the first distance is 2.5 inches. It would have been obvious to modify Beeson's invention since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A device having the claimed relative dimensions would not perform differently than the prior art device and therefore, the claimed device is not patentable distinct from the prior art device. MPEP 2144.

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Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the substrate comprises a semi-rigid vinyl material or an ABS material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate from a semi-rigid vinyl material or an ABS material, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865) in view of Gelardi et al. (USPN 5457843).

Beeson teaches all the essential elements of the claimed invention including strips having a rectangular shape. Beeson however fails to teach that the first strip has the shape of a triangular prism. It is well known to use triangular prisms to clean surfaces. For example, Gelardi teaches a cleaning sheet comprising triangular prisms (figure 1, 4 and 5) located on the top surface. It would have been obvious to at the time the invention was made to use a triangular prism as the shape of the cleaning strip on Beeson as taught by Gelardi since it is considered well known and further exemplified by Gelardi as a means for cleaning. Additionally, one of skill in the art would have expected Applicant's invention to perform equally well with either the rectangular or the triangular shape because both shapes perform the same function of cleaning optical sensors equally well.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865) in view of Kalbow (USPN 4055029).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the rectangular first strip has a top surface with a notch. Kalbow teaches an open-cell foam block comprising notches (12) in the top surface. It would have been obvious to one of skill in the art at the time the invention was made to modify the top surface of the first strip of Beeson with the notched top surface of Kalbow since the notches would allow the apparatus to clean more effectively (col. 1, lines 51-54). Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to notch a top surface of the first strip because Applicant has not disclosed that the notched surface provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the claimed notched surface or the top surface as taught by Beeson because both top surfaces perform the same function of cleaning equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Beeson to obtain the invention as specified in claim 19.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeson ('865).

Beeson teaches all the essential elements of the claimed invention however fails to teach that the rectangular first strip has a leading edge with an angled portion removed. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to remove an angled portion of the leading edge because Applicant has not disclosed that the angled edge provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the claimed angled edge or the edge as taught by Beeson because both leading edges perform the same function of cleaning equally well. Therefore, it would have been



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obvious to one of ordinary skill in the art to modify Beeson to obtain the invention as specified in claim 20. Additionally, regarding the shape of the cleaning strip, the court held that the shape or configuration of the claimed invention was a matter of choice, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration or shape of the claimed strip was significant. *In re Dailey*, 149 USPQ 47.

### ***Response to Arguments***

Applicant's arguments, filed 12/5/06, with respect to the rejection(s) of claim 1 under Gelardi ('843) has been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Beeson (USPN 5589865). Beeson teaches a separate first and second strip attached to a substrate sheet.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Slk  
12/19/06



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